

GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

Run on: August 28, 2003, 00:00:13 ; Search time 3539 Seconds

(without alignments)
10819.839 Million cell updates/sec

Title: US-09-308-829-1

Perfect score: 936

Sequence: 1 caacctgactataatg.....gagcttactactaatta 936

Scoring table: IDENTITY_NUC

Gapop 10.0 , Gapext 1.0

Searched: 2888711 seqs, 20454813386 residues

Total number of hits satisfying chosen parameters: 5777422

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : GenEmbl :
1: gb_ba : *
2: gb_htg : *
3: gb_in : *
4: gb_ov : *
5: gb_ov : *
6: gb_pat : *
7: gb_ph : *
8: gb_pl : *
9: gb_pr : *
10: gb_ro : *
11: gb_sts : *
12: gb_sy : *
13: gb_un : *
14: gb_vi : *
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16: em_fun : *
17: em_hum : *
18: em_in : *
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27: em_sts : *
28: em_un : *
29: em_vi : *
30: em_htg_hum : *
31: em_htg_inv : *
32: em_htg_other : *
33: em_htg_mus : *
34: em_htg_pln : *
35: em_htg_rtd : *
36: em_htg_man : *
37: em_htg_vtl : *
38: em_sy : *
39: em_htgo_hum : *
40: em_htgo_mus : *
41: em_htgo_other : *

Pred. No. is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	936	100.0	936	1	STRSPEC	M35514 S.pyogenes
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3	910.4	97.3	10029	1	AE006523	AE006523 Streptoco
4	681.2	72.8	702	1	STRPEXCA	M97116 Streptococc
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6	602.2	64.3	619	1	SPU02559	U02559 Streptococc
7	602.2	64.3	619	1	SPU02560	U02560 Streptococc
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10	462.2	49.4	467	1	AF055701	AF055701 Streptoco
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12	200.4	21.4	699	1	AF385523	AF385523 Streptoco
13	200.4	21.4	10107	1	AE006504	AE006504 Streptoco
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15	148.6	15.9	311600	1	AP005141	AP005141 Streptoco
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18	139.8	14.9	633	1	AF233454	AF233454 Streptoco
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34	94.6	10.1	10618	1	AE010110	AE010110 Streptoco
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ALIGNMENTS

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LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
REFERENCE
AUTHORS
TITLE

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S.pyogenes streptococcal pyrogenic exotoxin type C (spec) gene,
complete cds.
M35514
M35514.1 GI:153820
pyrogenic exotoxin.
Streptococcus pyogenes
Streptococcus pyogenes
Bacteria; Firmicutes; Lactobacillales; Streptococcaceae;
Streptococcus.
1 (bases 1 to 936)
Goshorn,S.C. and Schlievert,P.M.
Nucleotide sequence of streptococcal pyrogenic exotoxin type C


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Matches 923; Conservative 0; Mismatches 13; Indels 0; Gaps 0;

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Qy 61 AAAATTCCTAAATAAAGAAATCTGATTTTAACTACTCTATCTATTTCTATTTCT 120
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Qy 121 CGTACGATATACATTTAATTAAGAGAAAATGAAAAAGATTACATCATCAATA 180
Db 8606 CGTACGATATACATTTAATTAAGAGAAAATGAAAAAGATTACATCATCAATA 8547

Qy 181 GTTTTCATTAATTCAGTCACTGATTTCTACTATTTTCACCTATCATCAAGTACTCT 240
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Qy 361 AAATATAGAGGAAAGACTATTAATATAGTCCGAAATGCTTTAGAGCCCTCAAAA 420
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Qy 421 TTTTAAAGAGATGATCTATGATGATTTTGGATTTATTTATTTCTTAATTTCCACACC 480
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Streptococcus pyogenes M1 GAS strain SF370, section 52 of 167 of
the complete genome.
ACCESSION
AE006523 AE004092
VERSION
AE006523.1 GI:13621893
KEYWORDS
SOURCE
ORGANISM
Streptococcus pyogenes M1 GAS
Streptococcus pyogenes M1 GAS
Bacteria; Firmicutes; Lactobacillales; Streptococcaceae;
Streptococcus.
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Ferretti, J.J., McShan, W.M., Adji, D., Savic, D., Savic, G., Lyon, K.,
Primeaux, C., Sezate, S.S., Surorov, A.N., Kenton, S., Lai, H., Lin, S.,
Qian, X., Jia, H.G., Najjar, F.Z., Ren, Q., Zhu, H., Song, L., White, J.,
Yuan, X., Clifton, S.W., Roe, B.A. and McLaughlin, R.E.
Complete genome sequence of an M1 strain of Streptococcus pyogenes
Proc. Natl. Acad. Sci. U.S.A. 98 (8), 4658-4663 (2001)
21192684
PUBMED
11296296
REFERENCE
2 (bases 1 to 10029)
Ferretti, J.J., McShan, W.M., Adji, D., Savic, D., Savic, G., Lyon, K.,
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Qian, X., Jia, H.G., Najjar, F.Z., Ren, Q., Zhu, H., Song, L., White, J.,
Yuan, X., Clifton, S.W., Roe, B.A. and McLaughlin, R.E.
Direct Submission
Submitted (10-APR-2001) Department of Microbiology and Immunology,
University of Oklahoma Health Sciences Center, 940 St. Young Blvd,
Oklahoma City, OK 73104, USA
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(M05514) streptococcal pyrogenic exotoxin type C (spec)

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Oy	361	AAATATAGAGGAAAGACTATTTATATAGTTCGAAATGTCCTTATGAGGCTCTCAAAA	420
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Oy	421	TTTAAGCAGATGATCATGTAGATGTTTGGATTTATTTATTTCTTAATTCACACC	480
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Oy	481	GGTAGTACATCTATGAGGAATTAAGCCTCTCAAAATATTAAGTAATCATTAATTA	540
Db	1739	GGTAGTACATCTATGAGGAATTAAGCCTCTCAAAATATTAAGTAATCATTAATTA	1680
Oy	541	TTGGGAATCTATTATTATTTGGGAGAAATCTCACAGAACTTAAATTAACAGATTATCTA	600
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Db	1319	GTTTGTCTATCTCGAGGCTTATACGCTCTAATTTA	1284

RESULT	4
STREPXCA	
LOCUS	STREPXCA 702 bp DNA linear BCT 26-APR-1993
DEFINITION	Streptococcus pyogenes pyrogenic exotoxin C gene, 5' end cds.
ACCESSION	M97156
VERSION	M97156.1 GI:153784
KEYWORDS	pyrogenic exotoxin C; superantigen.
SOURCE	Streptococcus pyogenes
ORGANISM	Streptococcus pyogenes Bacteria; Firmicutes; Lactobacillales; Streptococcaceae; Streptococcus. 1 (bases 1 to 702)
REFERENCE	Goshorn,S.C. and Schlievert,P.M. Nucleotide sequence of streptococcal pyrogenic exotoxin type C Infect. Immun. 56 (9), 2518-2520 (1988)
TITLE	
JOURNAL	

	MEDLINE	PUBMED	REFERENCE	AUTHORS	TITLE	JOURNAL	MEDLINE	PUBMED	COMMENT
	88314303	3045005	2 (bases 1 to 702)	Kapur,V., Nelson,K., Schlievert,P.M., Selander,R.K. and Musser,T.J.M.	Molecular population genetic evidence of horizontal spread of two alleles of the pyrogenic exotoxin C gene (spec) among pathogenic clones of Streptococcus pyogenes	Infect Immun. 60 (9), 3513-3517 (1992)	92363541	1500157	Original source text: Streptococcus pyogenes (library: MGAS 1251) DNA.
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	Matches	689; Conservative 0; Mismatches 13; Indels 0; Gaps 0;							
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QY 514 CAAATATTAAGTAATCATTAATTATGGAAATCTATTATTCGGAGATCCAA 573
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Db 421 CAGAACTTAATTAACAAGATTAATCTAGAAAGATATCTAATCTTCAGAAATGAC 480
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Db 481 TTTAAATCGAAATACCTTATGATATTAATAATTTATGACGCTACTTCCTTAT 540
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Db 601 GACTCACCAGATGAAGGAGTATGATCAGATATTTTGGCAAAATTAAGATTAAGAT 660
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Db 661 ATCAATATGAAGACTTATGATCAGATATTTATCTTGA 702

RESULT 5
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LOCUS STREPEXC 702 bp DNA linear BCT 26-APR-1993
DEFINITION Streptococcus pyogenes pyrogenic exotoxin C gene, 5' end cds.
ACCESSION M97157
VERSION M97157.1 GI:153786
KEYWORDS pyrogenic exotoxin C; superantigen.
SOURCE Streptococcus pyogenes
ORGANISM Streptococcus pyogenes
REFERENCE 1 (sites)
Goshorn, S.C. and Schlievert, P.M.
Nucleotide sequence of streptococcal pyrogenic exotoxin type C
JOURNAL Infect. Immun. 56 (9), 2518-2520 (1988)
MEDLINE 88314303
PUBMED 3045005
2 (bases 1 to 702)
Kapur, V., Nelson, K., Schlievert, P.M., Selander, R.K. and Musser, J.M.
Molecular population genetic evidence of horizontal spread of two
alleles of the pyrogenic exotoxin C gene (spec) among pathogenic
clones of Streptococcus pyogenes
JOURNAL Infect. Immun. 60 (9), 3513-3517 (1992)
MEDLINE 92363541
PUBMED 1500157
COMMENT Original source text: Streptococcus pyogenes (library: MGAS 332)
DNA.

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Db 121 CTTTATGATACATCAATTAATCTCTTATGATTTAATTAAGTTGACGGTAAATTTTCAACG 180
QY 334 ACACACACATTAACATTTGATTAATCTCAAAATATTAAGGAGAAAGCTTATTAATGATTC 393
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Db 181 ACACACACATTAACATTTGATTAATCTCAAAATATTAAGGAGAAAGCTTATTAATGATTC 240
QY 394 GAAATGCTTATGAGGCTCTCAAAATTTAAACGAGATGATCATGATGTTTGA 453
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Db 241 GAAATGCTTATGAGGCTCTCAAAATTTAAACGAGATGATCATGATGTTTGA 300
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Db 301 TTATTTTATTTCTTATTTCTACACCGGAGTACATCTATGAGGAATTTAGCCCTGCT 360
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Db 481 TTTAAATCGAAATACCTTATGATATTAATAATTTATGACGCTACTTCCTTAT 540
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QY 754 GACTCACCAGATGAAGGAGTATGATCAGATATTTTGGCAAAATTAAGATTAAGAT 813
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Db 601 GACTCACCAGATGAAGGAGTATGATCAGATATTTTGGCAAAATTAAGATTAAGAT 660
QY 814 ATCAATATGAAGACTTATGATCAGATATTTATCTTGA 855
|||||
Db 661 ATCAATATGAAGACTTATGATCAGATATTTATCTTGA 702

RESULT 6
LOCUS SP002559 619 bp DNA linear BCT 30-JAN-2001
DEFINITION Streptococcus pyogenes spec. gene, partial cds.
ACCESSION SP002559
VERSION 002559.1 GI:409024

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KEYWORDS
SOURCE      Streptococcus pyogenes
ORGANISM    Streptococcus pyogenes
            Bacteria; Firmicutes; Lactobacillales; Streptococcaceae;
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REFERENCE   1 (bases 1 to 619)
AUTHORS    Norrby-Teglund,A., Holm,S.E. and Norgren,M.
TITLE      Detection and nucleotide sequence analysis of the spec gene in
            Swedish clinical group A streptococcal isolates
JOURNAL    J. Clin. Microbiol. 32 (3), 705-709 (1994)
MEDLINE    94253335
PUBMED     8195383
REFERENCE   2 (bases 1 to 619)
AUTHORS    Norrby-Teglund,A.
TITLE      Direct Submission
JOURNAL    Submitted (17-OCT-1993) Anna Norrby-Teglund, University of Umea,
            Clinical Bacteriology, Umea S-901 85, Sweden
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DB      61 CTTTATGCATACATATACTCTTATGATTAATTAAGATTGACAGGTAATTTTCAACG 120
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DB      121 ACACACACATTAAACATTGATCTCAAAATATAGAGGAAAGACTATTATATTAGTTCC 180
OY      394 GAATGCTTATAGGGCCTCTCAAAATTTTAAAGAGATGTCATGTAGATGTTTTTGA 453
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DB      181 GAAATGCTTATAGGGCCTCTCAAAATTTTAAAGAGATGTCATGTAGATGTTTTTGA 240
OY      454 TTATTTATATCTTAAATCTCACACCGGTCAGTACATCTATGAGGAATTAAGCCCTGCT 513
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OY      514 CAAATATAATAAGTAAATCATTAATTTATGGGAATCTATTTTTCGGGAGAAATCTCAA 573
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DB      301 CAAATATAATAAGTAAATCATTAATTTATGGGAATCTATTTTTCGGGAGAAATCTCAA 360
OY      574 CAGACTATAATACAGATTTATCTGAAAAGATATCGTAACCTTCCAGGAATTTGAC 633
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RESULT 7
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LOCUS      Streptococcus pyogenes T1M1 isolate Swe88 spec gene, partial cds.
DEFINITION      U02560
ACCESSION      U02560
VERSION      U02560.1
KEYWORDS      GI:409110
SOURCE      Streptococcus pyogenes
            Bacteria; Firmicutes; Lactobacillales; Streptococcaceae;
            Streptococcus.
REFERENCE   1 (bases 1 to 619)
AUTHORS    Norrby-Teglund,A., Holm,S.E. and Norgren,M.
TITLE      Detection and nucleotide sequence analysis of the spec gene in
            Swedish clinical group A streptococcal isolates
JOURNAL    J. Clin. Microbiol. 32 (3), 705-709 (1994)
MEDLINE    94253335
PUBMED     8195383
REFERENCE   2 (bases 1 to 619)
AUTHORS    Norrby-Teglund,A.
TITLE      Direct Submission
JOURNAL    Submitted (17-OCT-1993) Anna Norrby-Teglund, University of Umea,
            Clinical Bacteriology, Umea S-901 85, Sweden
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BASE COUNT      246 a          89 c          92 g          192 t
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Best Local Similarity 99.4%; Pred. No. 2.1e-88;
Matches 615; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

OY      215 ATTTCACCTATCATC-AAAGTGACTCTAAGAAAGACATTTGAGATGTTAAAGCATTTA 273
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Db      1  ATTTCACCTATCATCAAAAGTGAAGTCTAGAGAAAGACATTCGATGTTAAAGTGATTTA 60
QY      274 CTTTATGACATACACTAATCTTATGATTAATGAATTCGAGGGTAATTTTTCACG 333
Db      61  CTTTATGACATACACTAATCTTATGATTAATGAATTCGAGGGTAATTTTTCACG 120
QY      334 ACACACACATTAACATTTGACTCAAAAATATAGAGGAAGACATTTATTTAGTTC 393
Db      121 ACACACACATTAACATTTGACTCAAAAATATAGAGGAAGACATTTATTTAGTTC 180
QY      394 GAAATGCTTAGAGGCGCTCTCAAAAATTTAAAGAGATGATCATGATGTTTTCGA 453
Db      181 GAAATGCTTAGAGGCGCTCTCAAAAATTTAAAGAGATGATCATGATGTTTTCGA 240
QY      454 TTTTATTTATTTCTTATTTCTACACCGGTGATGATCTATGAGAGATTTAGCCCTCT 513
Db      241 TTTTATTTATTTCTTATTTCTACACCGGTGATGATCTATGAGAGATTTAGCCCTCT 300
QY      514 CAAATTAATTAAGTAAATCATTAATTAATTTGGAATCTTATTTTGGGAGATCTCAA 573
Db      301 CAAATTAATTAAGTAAATCATTAATTTATTTGGAATCTTATTTTGGGAGATCTCAA 360
QY      574 CAGACTTAATTAACAGATTTATTTAGAAAAGGATATGTAATCTTCCAGGAATTTGAC 633
Db      361 CAGACTTAATTAACAGATTTATTTAGAAAAGGATATGTAATCTTCCAGGAATTTGAC 420
QY      634 TTTTAAATTCAGAAATATCTTATGATTAATTTATTAATTTATGAGCTTCTTCCCTAT 693
Db      421 TTTTAAATTCAGAAATATCTTATGATTAATTTATTAATTTATGAGCTTCTTCCCTAT 480
QY      694 GTAAGCGGCGAGAAATTCGAAATTTGGCACAAAGATGGAACATGAGCAAAATAGACTTATTT 753
Db      481 GTAAGCGGCGAGAAATTCGAAATTTGGCACAAAGATGGAACATGAGCAAAATAGACTTATTT 540
QY      754 GACTCACCAGAAATGAGGAGCTAGATCAGATATTTTTCAGAAATTAAGATTAATAGATTT 813
Db      541 GACTCACCAGAAATGAGGAGCTAGATCAGATATTTTTCAGAAATTAAGATTAATAGATTT 600
QY      814 ATCAATATGAAGAATCTTA 832
Db      601 ATCAATATGAAGAATCTTA 619

RESULT 8
AF055699      467 bp  DNA      linear  BCT 22-AUG-2000
LOCUS
DEFINITION  Streptococcus pyogenes exotoxin C (spec) gene, spec3 allele.
ACCESSION  AF055699
VERSION    AF055699.1 GI:4206379
KEYWORDS
SOURCE     Streptococcus pyogenes
           Bacteria; Firmicutes; Lactobacillales; Streptococcaceae;
           Streptococcus.
ORGANISM   1 (bases 1 to 467)
           Bessen,D.E., Izzo,M.W., Fiorentino,T.R., Carlingal,R.M.,
           Hollingshead,S.K. and Beall,B.
           Genetic linkage of exotoxin alleles and emm gene markers for tissue
           tropism in group A streptococci
           J. Infect. Dis. 179 (3), 627-636 (1999)
JOURNAL    99137798
MEDLINE    9952369
PUBMED
REFERENCE  2 (bases 1 to 467)
           Bessen,D.E., Izzo,M.W., Fiorentino,T.R., Carlingal,R.M.,
           Hollingshead,S.K. and Beall,B.
           Direct Submission
           Submitted (27-MAR-1998) Epidemiology & Public Health, Yale
           University School of Medicine, 333 Cedar Street, Box 208034, New
           Haven, CT 06520, USA
FEATURES
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BASE COUNT      177 a      70 c      70 g      150 t
ORIGIN

Query Match      49.4%  Score 462.2; DB 1; Length 467;
Best Local Similarity 99.4%; Pred. NO. 1.2e-65;
Matches 464; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

QY      253 TCGAATGTTAAAGTGAATTTACTTTATGATATACATTAACCTCCTTATGATTTAAAGAT 312
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QY      313 TGCAGGGTAAATTTTTCACACACACACATTAACATTTGATCTCAAAAATATAGAGG 372
Db      61  TGCAGGGTAAATTTTTCACACACACACATTAACATTTGATCTCAAAAATATAGAGG 120
QY      373 AAAGACTATTAATTAATTCGGAATGCTTATGAGGCGCTCTCAAAAATTAAGAGAT 432
Db      121 AAAGACTATTAATTAATTCGGAATGCTTATGAGGCGCTCTCAAAAATTAAGAGAT 180
QY      433 GATCATGTAGATGTTTGTGATTAATTTATTAATTTCTCAACCGGTGATGATCATC 492
Db      181 GATCATGTAGATGTTTGTGATTAATTTATTAATTTCTCAACCGGTGATGATCATC 240
QY      493 TATGAGAGAAATTCAGCGCTGCTCAAAATTAATTAATTAATTTATTTGGCAATCTGA 552
Db      241 TATGAGAGAAATTCAGCGCTGCTCAAAATTAATTAATTAATTTATTTGGCAATCTGA 300
QY      553 TTTATTTTCGGAGAGATCTCAACAGACTTAATTAATTAATTAATTTAGAAAAGATATC 612
Db      301 TTTATTTTCGGAGAGATCTCAACAGACTTAATTAATTAATTTAGAAAAGATATC 360
QY      613 GTAACTTTCCAGGAATTTGACTTTAAATCAGAAAATATCCTTATGATTAATTTAAATTT 672
Db      361 GTAACTTTCCAGGAATTTGACTTTAAATCAGAAAATATCCTTATGATTAATTTAAATTT 420
QY      673 TATGACGCTACTTCTCTTATGTAAGCGGAGATGCAATTTGGCAC 719
Db      421 TATGACGCTACTTCTCTTATGTAAGCGGAGATGCAATTTGGCAC 467

RESULT 9
AF055700      467 bp  DNA      linear  BCT 22-AUG-2000
LOCUS
DEFINITION  Streptococcus pyogenes exotoxin C (spec) gene, spec4 allele.
ACCESSION  AF055700
VERSION    AF055700.1 GI:4206381
KEYWORDS
SOURCE     Streptococcus pyogenes
           Bacteria; Firmicutes; Lactobacillales; Streptococcaceae;
           Streptococcus.
ORGANISM   1 (bases 1 to 467)
           Bessen,D.E., Izzo,M.W., Fiorentino,T.R., Carlingal,R.M.,
           Hollingshead,S.K. and Beall,B.
           Genetic linkage of exotoxin alleles and emm gene markers for tissue
           tropism in group A streptococci

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JOURNAL
MEDLINE
99137798
PUBMED
9952369
REFERENCE
AUTHORS
2 (bases 1 to 467)
Bessen,D.E., Izzo,M.W., Florentino,T.R., Carlingal,R.M., Hollingshead,S.K. and Beall,B.
TITLE
JOURNAL
Direct Submission
Submitted (27-MAR-1998) Epidemiology & Public Health, Yale University School of Medicine, 333 Cedar Street, Box 208034, New Haven, CT 06520, USA
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BASE COUNT
178 a 69 c 69 g 151 t
ORIGIN

Query Match 49.4%; Score 462.2; DB 1; Length 467;
Best Local Similarity 99.4%; Pred. No. 1.2e-65;
Matches 464; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

OY 253 TCGAATGTTAAAGATTTACTTATGCAATACATTAACCTCTTATGATTATAAGAT 312
DB 1 TCGAATGTTAAAGATTTACTTATGCAATACATTAACCTCTTATGATTATAAGAT 60
OY 313 TCGAGGGTAAATTTTTCACGACACACATTAACATTTGATTCGAAATATAGAGG 372
DB 61 TCGAGGGTAAATTTTTCACGACACACATTAACATTTGATTCGAAATATAGAGG 120
OY 373 AAAGACTTATATTAGTCCGAAATGCTTATGAGGCTCTCAAAAATTTAAACGAGAT 432
DB 121 AAAGACTTATATTAGTCCGAAATGCTTATGAGGCTCTCAAAAATTTAAACGAGAT 180
OY 433 GATCATGTAGATGTTTGGATTTATTTATTTCTTATTCACACCGGTGAGTACATC 492
DB 181 GATCATGTAGATGTTTGGATTTATTTATTTCTTATTCACACCGGTGAGTACATC 240
OY 493 TATGAGAGAAATTAGCCCTGCTCAAAATTAATTAAGTAATCATTAATTTTGGAAATCTA 552
DB 241 TATGAGAGAAATTAGCCCTGCTCAAAATTAATTAAGTAATCATTAATTTTGGAAATCTA 300
OY 553 TTTATTTGGGAGATCTCAACAGACTTAATAACAAGATTATTCTGAAGAAGATATC 612
DB 301 TTTATTTGGGAGATCTCAACAGACTTAATAACAAGATTATTCTGAAGAAGATATC 360
OY 613 GTAACCTTCCAGAAATGACTTTTAAATCAAGAAATACCTTATGGAATTAATTAAT 672
DB 361 GTAACCTTCCAGAAATGACTTTTAAATCAAGAAATACCTTATGGAATTAATTAAT 420
OY 673 TATGACGCTACTCTCTTATGTAAGCGGAGAAATCGAAATTTGGCAC 719
DB 421 TATGACGCTACTCTCTTATGTAAGCGGAGAAATCGAAATTTGGCAC 467

RESULT 10
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LOCUS
DEFINITION Streptococcus pyogenes exotoxin C (spec) gene, specs allele.

partial cds.
ACCESSION
AF055701
VERSION
AF055701.1 GI:4206383
KEYWORDS
SOURCE
ORGANISM
Streptococcus pyogenes
Streptococcus pyogenes
Bacteria; Firmicutes; Lactobacillales; Streptococcaceae;
Streptococcus.
REFERENCE
AUTHORS
1 (bases 1 to 467)
Bessen,D.E., Izzo,M.W., Florentino,T.R., Carlingal,R.M., Hollingshead,S.K. and Beall,B.
TITLE
JOURNAL
Genetic linkage of exotoxin alleles and emm gene markers for tissue tropism in group A streptococci
J. Infect. Dis. 179 (3), 627-636 (1999)
PUBMED
99137798
PUBMED
9952369
REFERENCE
AUTHORS
2 (bases 1 to 467)
Bessen,D.E., Izzo,M.W., Florentino,T.R., Carlingal,R.M., Hollingshead,S.K. and Beall,B.
TITLE
JOURNAL
Direct Submission
Submitted (27-MAR-1998) Epidemiology & Public Health, Yale University School of Medicine, 333 Cedar Street, Box 208034, New Haven, CT 06520, USA
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SGESQONNNKILIEKDIIVFOEIDFKIRKLYMDNYKIYDATSPYVSGRIEIGT"
BASE COUNT
177 a 70 c 70 g 150 t
ORIGIN

Query Match 49.4%; Score 462.2; DB 1; Length 467;
Best Local Similarity 99.4%; Pred. No. 1.2e-65;
Matches 464; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

OY 253 TCGAATGTTAAAGATTTACTTATGCAATACATTAACCTCTTATGATTATAAGAT 312
DB 1 TCGAATGTTAAAGATTTACTTATGCAATACATTAACCTCTTATGATTATAAGAT 60
OY 313 TCGAGGGTAAATTTTTCACGACACACATTAACATTTGATTCGAAATATAGAGG 372
DB 61 TCGAGGGTAAATTTTTCACGACACACATTAACATTTGATTCGAAATATAGAGG 120
OY 373 AAAGACTTATATTAGTCCGAAATGCTTATGAGGCTCTCAAAAATTTAAACGAGAT 432
DB 121 AAAGACTTATATTAGTCCGAAATGCTTATGAGGCTCTCAAAAATTTAAACGAGAT 180
OY 433 GATCATGTAGATGTTTGGATTTATTTATTTCTTATTCACACCGGTGAGTACATC 492
DB 181 GATCATGTAGATGTTTGGATTTATTTATTTCTTATTCACACCGGTGAGTACATC 240
OY 493 TATGAGAGAAATTAGCCCTGCTCAAAATTAATTAAGTAATCATTAATTTTGGAAATCTA 552
DB 241 TATGAGAGAAATTAGCCCTGCTCAAAATTAATTAAGTAATCATTAATTTTGGAAATCTA 300
OY 553 TTTATTTGGGAGATCTCAACAGACTTAATAACAAGATTATTCTGAAGAAGATATC 612
DB 301 TTTATTTGGGAGATCTCAACAGACTTAATAACAAGATTATTCTGAAGAAGATATC 360


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      537 ATATTGGGAATCTATTTATTTTCGGAGATCTCAACAGACTTAATAACAGATTAAT 596
      4765 AATTGTAGTATTTACTATAGTATGAGTCCAGCAAAAAACACTTAATAATCCCATAAA 4706
      597 TCTAGAAAGGATATCTGTAACCTTTCCAGGAAATTGACTTAAATACGAAAAATACCTTAT 656
      4705 AATAGATTAACCTTTTACGATTTCAAGAAATTGACTTCAAAATCAGACAAATATCTTAT 4646
      657 GGATTAATTAATAATTTATGACCTACTTCTCTTATGTAAGCGGAGATCCGAATTTGG 716
      4645 GCAAACTATACAAAATTTATATCTTAATCTCCATTAATAAAGGCAATTAGAAATTTGC 4586
      717 CACAAAGATGGGAACATGACCAATAGACTTATTTGACTCACCACCAATGAGGAGTAG 776
      4585 GATCAATGGCAATTAACATGAACTTTAACTTATATGATGACCAACCTCATCTAGTACAG 4526
      777 ATCAGATATTTTGCAAAATATTAAGATTAATAGATTAATCAATATGAAGAATTTAGTCA 836
      4525 GAGTGAATATTTTAAATAATTAAGACAAATAGACTATAATATGAAGATTTACAGCA 4466
      837 TTTCGATATTTATCTTAAAAAATTAAT 862
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RESULT 14
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LOCUS Streptococcus pyogenes MGAS315, section 4 of 37 of the complete
DEFINITION genome.
ACCESSION AE014139 AE014074
VERSION AE014139.1 GI:21903849
KEYWORDS Streptococcus pyogenes MGAS315
SOURCE Streptococcus pyogenes MGAS315
ORGANISM Bacteria; Firmicutes; Lactobacillales; Streptococcaceae;
          Streptococcus.
REFERENCE 1 (bases 1 to 50631)
          Barres,S.B., Sylva,G.L., Barbican,K.D., Lei,B., Hoff,J.S.,
          Mammarella,N.D., Liu,M.-Y., Smoot,J.C., Porcella,S.F.,
          Parkins,L.D., McCormick,J.K., Leung,D.Y.M., Schlievert,P.M. and
          Musser,T.M.
          Genome sequence of a serotype M3 strain of group A Streptococcus:
          Phage-encoded toxins, the high-virulence phenotype and a clone
          emergence
          Proc. Natl. Acad. Sci. U.S.A. 99 (15), 10078-10083 (2002)
JOURNAL 2 (bases 1 to 50631)
REFERENCE Beres,S.B., Sylva,G.L., Barbican,K.D., Lei,B., Hoff,J.S.,
AUTHORS Mammarella,N.D., Liu,M.-Y., Smoot,J.C., Porcella,S.F.,
          Parkins,L.D., McCormick,J.K., Leung,D.Y.M., Schlievert,P.M. and
          Musser,T.M.
TITLE Direct Submission
JOURNAL Submitted (14-JUN-2002) Laboratory of Human-Bacterial Pathogenesis,
AUTHORS Rocky Mountain Laboratories, NIAID, NIH, 903 South Fourth St.,
          Hamilton, MT 59840, USA
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gene
CDS

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gene
CDS

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7956..8441
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7956..8441
/note="best non-GAS blastp hit:gblAAK76101.1] (AE007492)
PTS system, IIB component [Streptococcus pneumoniae
tigr], and gblAAU00650.1] (AE008549) Phosphotransferase
system sugar-specific EII component [Streptococcus
pneumoniae R6]"
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[Streptococcus pneumoniae Koj]"
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Dd	28692 AATGACATACATATTATTACTAAACAANAAGTCCGAATGTVTTCTTTATGTTGATTTCT	28751			
Oy	394 GAAATGCTTATGAGGCGCTCAAAAATTTTAAACGAGATGATCATGTATGTTTGGGA	453			
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Dd	28812 CTCCTTATTAATTTTCTCCACCTTATGTAGATTAATATTATGCTGATTTGTTAAACAT	28871			
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ACCESSION	AP005141 BA000034				
VERSION	AP005141.1 GI:28810157				
KEYWORDS					
SOURCE	Streptococcus pyogenes SSI-1				
ORGANISM	Streptococcus pyogenes SSI-1				

Bacteria; Firmicutes; Lactobacillales; Streptococcaceae;
Streptococcus.

REFERENCE
AUTHORS
1 Nakagawa, I., Kurokawa, K., Yamashita, A., Nakata, M., Tomiyasu, Y.,
Okahashi, N., Kawabata, S., Yamazaki, K., Shida, T., Yasunaga, T.,
Hayashi, H., Hattori, M. and Hamada, S.
TITLE
Genome Sequence of an M3 Strain of Streptococcus pyogenes Reveals a
Large-Scale Genomic Rearrangement in Invasive Strains and New
Insights into Phage Evolution
JOURNAL
Genome Res. 13 (6), 1042-1055 (2003)
MEDLINE
2683278
AUTHORS
2 (bases 1 to 311600)
Yamashita, A., Nakagawa, I., Kurokawa, K., Nakata, M., Tomiyasu, Y.,
Yamazaki, K., Okahashi, N., Kawabata, S., Yasunaga, T., Hattori, M.,
Hayashi, H. and Hamada, S.
TITLE
Direct Submission
JOURNAL
Submitted (01-MAY-2002) Ken Kurokawa, Osaka University, Genome
Information Research Center: 3-1, Yamadaoka, Suita, Osaka 565-0871,
Japan (E-mail: ken@gen-info.osaka-u.ac.jp,
URL: http://www.gen-info.osaka-u.ac.jp/, Tel: 81-6-6879-8365,
Fax: 81-6-6879-2047)
COMMENT
This clone was isolated from a patient presenting with toxic shock
like syndrome.

FEATURES
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Db     177427 AAAAAGTTTTAAATGAACAACAACATTTTGACAATTATCATATTTGCATGTCTTTTACC 177486

OY    217   TTCACCTATCATCAAAGTGACTCTAAGAACAGCATTGGAAATGTTAAAAGTAGATTACTT 276
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OY    277   TATGCATACATATAAATCCCTTATGATATATTAAGATGTGACGGCTAAATTTTTCACAGACA 336
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Db     177547 TTTCCTATATATTATTAACCCCATGCCATTAATGAAAATGTAGAANAATGCATTTGTACCTACA 177606

OY    337   CACACATTTAAACATGTAGTACTCAAAAATATAGAGGAGAAA--GACTATATATTAATGATCC 393
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Db     177607 AATAGCATACATTTAATACTAAACAACAAAAAGATCGAATGTATTTCTTATGTGTATCT 177666

OY    394   GAATGCTTATAGACCGCTCTCAAAAATTTTAAACAGAGATGATCATGTAGATGTTTTTGA 453
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Db     177667 ATGTATCTTTTAGGCATTACGATCAGTGTATTAATAAAGGGAGTAAGTGCATGTGTTTTGGT 177726

OY    454   TTATTTTATATTTCTTACACACCGGAGTACATCATATGAGGAAATTACGCGTGT 513

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Db	177787	TGGAATCAGAGAAATAAATTCATTACAGTTTGAGGAATTTTAAATCAGATGGGAAGA	177846
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Db	177907	GATCTTAATAAGAAATTTCTATGGAATAATCAATATCATATGATTCGGATGCGGT	177966
QY	691	TATGTAACCGGCAGATCGAATTTGGCCAAAGATGGGAACATGACGAATAAGACTTA	750
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